SPECIAL MATH CLUB LECTURE 4:30 PM, 13 March 2008, 232 Lockett

Solving Linear Inequalities with Applications to Geometry, Optimization, and Combinatorics



Professor Guoli Ding LSU Department of Mathematics http://www.math.lsu.edu/~ding/

Abstract: Since every equation A = B can be equivalently expressed as two inequalities $A \leq B$ and $B \leq A$, solving inequalities can be considered a generalization of solving equations. In this talk, beginning with a very simple algorithm, we develop a general theory on solving linear inequalities. Then we will discuss applications of this theory in different areas of mathematics, including polyhedral theory, linear programming, and combinatorics.

> All undergrads and first year grads invited. Refreshments will be provided.